



AIN 1732
PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application of Lawrence L. Staples
Serial No. 09/090,631
Filed June 4, 1998
For AIR INFILTRATION PREVENTION IN BUILDINGS
Examiner Christopher T. Kent Art Unit 3621

DECLARATION OF LAWRENCE L. STAPLES

I, Lawrence L. Staples, declare and state as follows:

1. I am a co-inventor of the subject matter claimed in the above-noted application. Pursuant to the duty of disclosure under 37 CFR 1.56, I make the following statement concerning certain activities involving the subject invention which occurred more than a year prior to the application's priority date of June 4, 1997.

2. At the time the invention claimed in the above-noted patent application was made I was an owner and an employee of Aladdin Insulation & Roofing, Inc. (hereinafter referred to as "Aladdin"), the assignee of this patent application.

3. On November 8, 1995 the electric utility company in St. Louis, Union Electric Company, initiated a joint project with Northside Preservation, developer of a subdivision in St. Louis called Maple Acres Subdivision, to compare the effectiveness of different types of insulation and sealant packages. Union Electric and Northside Preservation selected three companies to install insulation packages on homes in Maple Acres: Nu Wool Insulation Co.; Air Tight Insulation; and Aladdin.

4. To obtain the most accurate and comparable results, the research project required installing insulation in homes of

nearly identical size, floor plan and construction materials. Therefore, the research project was performed on newly constructed homes within a single subdivision.

5. In February of 1996 Aladdin installed its insulation and sealant system which is described in the subject patent application into three partially constructed homes in the Maple Acres subdivision as part of the Maple Acres study. Prior to this time Aladdin had used glue between isolated abutting surfaces in isolated circumstances, but had never applied glue to a majority of the abutting wooden surfaces in a frame, or even to more than a fraction of such wooden surfaces, because Aladdin had never tried to reduce air infiltration by creating, in essence, a sealed envelop out of a preconstructed frame before. The February 1996 Maple Acres study was the first instance in which Aladdin applied glue to a majority of the abutting wooden frame components of a building having a wooden frame. This was the first instance Aladdin applied glue to a majority of the following abutting surfaces referred to in the patent application: double plates, double studs, studs and headers, corner surfaces of wall frames, subfloors and exterior wall plates, bandboard surfaces and subfloors, and bandboards and plates. Aladdin completed installation of its system into the subject homes at Maple Acres on or about February 1996. The other participants in the study, Nu-Wool and Air-Tight, completed installation of their systems in this same period. Thereafter construction of the homes was completed, and residents moved into the homes in about April 1996. Aladdin was compensated by Union Electric for this work.

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6. In June 1996 (after June 4, 1996) the homes of all three of the study participants were blower door tested by Peterson Energy Consultants. These tests involved the temporary installation of a blower door into an exterior doorway of a home. The blower door essentially pulls a vacuum on the house to detect points of air infiltration and measure the number of air changes per hour. When the results of these tests were thereafter released we determined that our invention was effective. Thereafter Union Electric was to continue to monitor and compare the electric usage at the test homes in Maple Acres as an ongoing project.

7. Our primary purpose for using the method described in my patent application during the construction of three test homes was to determine the efficacy of this method for achieving improved energy efficiency in residences.

8. All statements made herein of my knowledge are true and that all statements made on information and belief are believed to be true; and further, these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

Lawrence L. Staples 11/21/88